

WHAT IS CLAIMED IS:

1. An isolated polynucleotide comprising:
- 5 a) the nucleotide sequence of SEQ ID NO:1, or a transcriptionally active fragment thereof;
- b) nucleotides 1-2605, 2011-2605, 2011-5342, 3331-3656, 3421-3548 or 3495-3599 of SEQ ID NO:1; or
- c) nucleotides 3331-3656, 3495-3599 or 3421-3548 of SEQ ID NO:1.
- 10 2. An isolated polynucleotide comprising, nucleotides 3331-3656, 3495-3599 or 3421-3548 of SEQ ID NO:1 spliced downstream of nucleotides 1-2558 of SEQ ID NO:1.
3. An isolated polynucleotide that hybridizes under highly stringent conditions to the complement of the polynucleotide of Claim 1.
- 15 4. An isolated polynucleotide that hybridizes under moderately stringent conditions to the complement of the polynucleotide of Claim 1.
5. An isolated polynucleotide that comprises the complement of the
- 20 polynucleotide of Claim 1.
6. An isolated polynucleotide comprising the polynucleotide of Claims 1 or 2 operably associated with a heterologous coding sequence.
- 25 7. A vector comprising the polynucleotide of Claims 1, 2, 3 or 4.
8. An expression vector comprising the polynucleotide of Claims 1, 2, 3 or 4 operably associated with a heterologous coding sequence.
- 30 9. A genetically engineered host cell comprising the polynucleotide of Claims 1, 2, 3 or 4.
10. A genetically engineered host cell comprising the polynucleotide of Claims 1, 2, 3 or 4 operably associated with a heterologous coding sequence.
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11. A transgenic, non-human animal comprising the polynucleotide of Claims 1, 2, 3 or 4.

12. The polynucleotide of claim 6, wherein the heterologous coding sequence is a reporter gene.

13. The polynucleotide of claim 12, wherein the reporter gene is *LacZ*.

14. A method for identifying a test compound capable of modulating SMC-specific gene expression comprising:

(a) measuring the level of expression of a reporter gene under the control of an SM α -A regulatory region or a transcriptionally active fragment thereof in the presence and absence of said test compound, such that if the level obtained in the presence of the test compound differs from that obtained in its absence, then a compound which modulates SMC-specific gene expression is identified.

15. The method of claim 14 wherein the reporter gene is *LacZ*.

16. A pharmaceutical composition comprising the test compound identified by the method in claim 14.

17. A method for delivery of a therapeutic molecule comprising, introducing into SMC of a subject a vector comprising an SM α -A regulatory region sequence, or transcriptionally active fragment thereof, operatively linked to a heterologous nucleic acid which encodes said therapeutic molecule.

18. A method for inhibiting or treating SMC-related cancer or other proliferative disorder comprising introducing into smooth muscle cells of a subject a vector comprising an SM α -A regulatory region sequence, or transcriptionally active fragment thereof, operatively linked to a heterologous nucleic acid whose gene product is capable of killing said smooth muscle cell.

19. A method for preventing or delaying a SMC-related disorder comprising introducing into smooth muscle cells of a subject a vector comprising an SM α -A regulatory region sequence, or transcriptionally active fragment thereof, operatively linked to a

heterologous nucleic acid which encodes a therapeutic molecule which is capable of preventing or delaying said disorder.

20. The method of Claim 19, wherein said disorder is a heart attack.

21. An isolated polynucleotide having a sequence identical in sequence to 20 contiguous nucleotides of the sequence as set forth in SEQ ID NO:1.

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